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PN-AAP-665/62

SCOPE OF WORK FOR ASSISTANCE
IN PREPARATION OF COMPREHENSIVE PLAN
FOR THE INTERNATIONAL DECADE FOR
DRINKING WATER AND SANITATION

ISN-34099

A Report Prepared By:
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During The Period:
FEBRUARY 28 - MARCH 18, 1980

Under The Auspices Of The:
AMERICAN PUBLIC HEALTH ASSOCIATION

Supported By The:
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
OFFICE OF HEALTH, AID/DSPE-C-0053

AUTHORIZATION:
MEMO DS/HEA 2/28/80
Assgn No. 583-017

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Background The Government of Sri Lanka has asked USAID/Sri Lanka for assistance in the preparation of a comprehensive plan for expanded activities in the water supply and sanitation sector during the International Decade for Drinking Water and Sanitation. The Government has prepared a Draft Plan which was reviewed at a national workshop in Colombo March 6-8. That review indicated that a considerable amount of work is required in the development of the plan. One copy of the Draft Plan, a statistical annex, and material from the workshop were hand carried for immediate delivery to AID/W. Three additional copies are being air-pouched by USAID/Sri Lanka; one set is intended for attachment to this report. These documents provide additional background.

The purpose of this consultation, requested by USAID/Sri Lanka, was to develop the scope of work for the assistance requested by the Government of Sri Lanka. The scope of work (Attachment I) was prepared in consultation with officials of the Ministry of Local Government, Housing and Construction and members of the USAID Mission and it has been approved by both.

The Government intends to present a Decade Plan to the U.N. General Assembly at a November session (reported to be slated for November 10-15) for which all countries have been asked to submit plans. In order to meet that deadline and permit the orderly processing of a plan through the Government (at Cabinet level) it is important that the assistance inputs requested of USAID be provided and that stage of preparation be completed prior to July 1. The planning is being done at the Senior Assistant Secretary level within the Ministry of Local Government, Housing and Construction; this should facilitate the work of the USAID assistance team.

Problems There do not appear to be any major problems in the planning process. There is one area of sensitivity which should be pointed out, however. The Government is anxious to have USAID assistance in preparing the plan but it is equally anxious to avoid the impression that any final plan bears a foreign label. This represents no problem, if the assistance team, particularly the Team Leader, maintains a close working relationship with the Senior Assistant Secretary, Mr. R.H.P. Fernando, who will be responsible for coordinating assistance inputs.

Recommendations

1. That assistance as described in the Scope of Work (Attachment I) be provided.
2. That the assistance team members, particularly the Team Leader, be of sufficient seniority and experience to be able to work effectively and comfortably at senior levels of government.

Principal Contacts

USAID/Sri Lanka	Mr. J.R. Meenan, Capital Development Officer Mr. Vitus Fernando, Capital Development Assistant Mr. John Eriksson, Assistant Mission Director Ms. Sara Jane Littlefield, Mission Director
Ministry of Local Government	Mr. R.H.P. Fernando, Senior Assistant Secretary Mr. Desmond McNeil, Advisor (ODM) Mr. N.D. Pieris, Chm. National Water Supply and Drainage Board
WHO	Mr. D.V. Subrah Manyam, Regional Engineer, Searo Mr. Hussein Surhi, Sanitary Engineer, Colombo Mr. Pierre Hirano, Sanitary Engineer, Colombo Dr. Rhagava Rao, GeoHyprologist, Colombo
UNICEF	Mr. Paul Ignatieff, UNICEF Rep., Colombo Mr. Martin Beyer, Water Supply Advisor, New York

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Scope of Work for Assistance in Preparation of Comprehensive
Plan for the International Decade for Drinking Water and Sanitation

I. Background

- I.a. A primary social objective of the Government of Sri Lanka is to improve the quality of life of the people.
- I.b. Reasonable access to safe water, in adequate quantity, falls within the broad social objective as does the improvement in methods of excreta disposal.
- I.c. The 1978 population was estimated at 14.8 million of which 3.6 million (24%) was classified as urban and 11.2 million (76%) as rural. Current data on availability of services are lacking but according to 1975 data, 64% of the urban population lacked reasonable access to safe water as did 87% of the rural population. Correspondingly, 32% of the urban population and 45% of the rural population lacked adequate excreta disposal facilities. These figures probably understate the problem but they are indicative of the magnitude of the need in Sri Lanka.
- I.d. In spite of certain improvement in the health situation over the last decade there has been a recent increase in the incidence of infectious and parasitic diseases. Approximately 40% of all hospital admissions are due to preventible diseases, most of which are associated with inadequate drinking water supply and unsanitary environmental conditions. Gastroenteritis remains a main cause of high infant mortality. Typhoid fever and viral hepatitis are prevalent. Sri Lanka is also subject to periodic cholera outbreaks.
- I.e. Rainfall received from the Southwest monsoon between May and July and the Northeast monsoon between October and December divides the country into a Wet Zone and a Dry Zone. The former covers approximately one-quarter of the country on the Southwest side where the average annual rainfall is about 2,400 mm (95 ins.). The Dry Zone has an average annual rainfall of about 1,450 mm (37 ins.). Geologically, beneath superficial deposits, the bed-rock over 90% of the country is Precambrian crystalline. In the remaining 10%, mainly along the Northwest coastal belt, sedimentary rock of the Jurassic and Miocene age are encountered.
- I.f. Studies of ground and surface water resources have been conducted by various organizations including the Water Resources Board of the Ministry of Lands and Land Development and the National Water Supply and Drainage Board of the Ministry of Local Government, Housing and Construction. Adequate surface water exists in much of the country; high potential yield aquifers have been located in other parts. There is evidence of saline intrusion in some areas.

- I.g. The country is divided into 9 provinces, 24 districts, 157 divisions and 3,614 Grama Sevakas (village service units). Local authorities administer 12 Municipal Councils, 34 Urban Councils, 83 Town Councils and 542 Village Councils.
- I.h. The Ministry of Local Government, Housing and Construction; the Ministry of Health and the Water Resources Board of the Ministry of Lands and Land Development are involved with water supply and excreta disposal as are local authorities. The National Water Supply and Drainage Board of the Ministry of Local Government is the principal implementing agency for water supply and water-borne sewage. The Ministry of Health administers a water-seal latrine program along with its programs of health education and personal hygiene. Operation and maintenance are the responsibility of local authorities in most instances. The Water Resources Board is responsible for study and development of both surface and ground water resources.

II. Proposed Assistance to be Provided

- II.a. The Government of Sri Lanka has requested assistance from USAID/Sri Lanka in the preparation of a comprehensive plan for the development of the Water Supply and Sanitation sector during the International Decade for Drinking Water and Sanitation.
- II.b. A draft plan has been prepared by the Government and reviewed at a national workshop held March 6-8, 1980.
- II.c. Additional data for inclusion in the plan are now being collected by the Government.
- II.d. Additional preparatory inputs designed to identify areas where changes are needed and gaps where more information is required are expected from WHO for one month beginning in early April. Two WHO staff members, Martin Jackson and David Steele, from WHO/HQ, Geneva will provide these inputs.
- II.e. The proposed USAID assistance contemplated under this PIO/T is designed to review existing planning material and add to it as necessary to provide the Government of Sri Lanka with a comprehensive planning document which it can accept in its entirety or adapt and modify to suit its Decade Strategy.
- II.f. It is important that the assistance here contemplated be provided in close collaboration with: the National Coordinating Committee on Water Supply and Sanitation; senior officials of the Ministry of Local Government, Housing and Construction; the National Water Supply and Drainage Board; and the Water Resources Board. This is essential because of the relationship of elements of the plan to national policy planning.

- II.g. In view of needed external assistance to carry out whatever Decade plan evolves, it becomes essential that the final document not only identify the needs and strategy of the GSL but that it include sufficient detail to provide the donor community with a basis for decision-making with regard to program support.

III. Contractor's Responsibilities

- III.a. The Contractor will review draft plans and preparations made by the Government of Sri Lanka and prepare a report containing expanded descriptive and analytical material in sufficient detail to constitute a comprehensive Decade plan. A thorough analysis shall be made by the Contractor of existing material pertinent to the planning process, including, but not limited to, the Draft Plan, the Statistical Annex, the comments and questions of the National Workshop Working Groups, information deriving from the consultancy of the WHO Jackson/Steele Team, and the feasibility study findings on the Market Town Water Supply - Jaffna Peninsula Project.
- III.b. The Contractor will revise the Draft Decade Plan as needed, expanding its contents to ensure its adequacy with regard to:
1. Definition of the Overall Problem - through a needs analysis in terms of population requiring improved services. This analysis should be based on the smallest population unit (province, district, division) practical.
(Primary Technical Inputs from Team Leader, Economist, Social Scientist).
 2. Statement of Government Policy
(Primary Input by GSL).
 3. Statement of Decade Plan Goal, Objectives, Priorities
(Primary Inputs by GSL, and all members of Team).
 4. Socio-Economic Analysis
Analysis of health, social, and other benefits of water supply and sanitation related to other activities designed to improve the quality of life.
(Primary Technical Inputs by Economist, Social Scientist).
 5. Selection Criteria
Development of service level selection criteria to be used in establishing priorities among service projects.
(Primary Technical Inputs by all Team members).

6. Strategy

- A. Determination of input requirements - manpower, materials, technology, institutional support and financing (including ten-year cost projections).
(Primary Technical Inputs by all Team members).
- B. Technology Selection - selection of technology appropriate to levels of service, operability, maintainability and affordability - alternative technologies.
(Primary Inputs by Team Leader, Social Scientist, Economist, Geohydrologist, Materials Technologist).
- C. Methods of Approach - the relationship between central government efforts and local community aspirations, efforts and abilities - alternative methodologies (top-down; bottom-up) - health education - community involvement.
(Primary Inputs by Team Leader, Economist, Social Scientist).
- D. Institutional Framework - management systems; institutional projection to community level; interaction between government agencies, local authorities and the community at large; provision for water quality monitoring; community participation in project identification, design, construction, operation and maintenance, service charges, tariff structures.
(Primary Inputs from Team Leader, Management Specialist, Social Scientist, Economist).
- E. Resource Analysis - public and private resources available in terms of manpower, materials, technology, institutional framework and financing.
(Primary Inputs from all Team members).
- F. Constraints Analysis -
 - A. Technology, materials and equipment
 - B. Manpower
 - C. Institutional
 - D. Socio-Cultural
 - E. Operational - experience related to problems of operation and maintenance
 - F. Legal - legislative authority (i.e., for rate setting)
 - G. Financial
 (Primary Inputs from all Team members).

III.c. The Contractor will develop for inclusion in the Decade Plan detailed initial Two-year investment projections as the first phase of a "rolling investment plan." The Decade investment plan must be "rolling" to ensure attainment of sector objectives and goals by allowing annual evaluation and revision. The initial Two-year investment plan will provide for specific discrete activities in the first two years. Activities to be considered include development of institutional capability, manpower, materials and technology as well as the identification, design and construction

of systems and the rehabilitation of existing facilities where appropriate. Consideration should also be given to the inclusion of research and development studies designed to provide guidance for further planning and answer questions for which complete answers are not currently available.
(Primary Inputs by all Team members).

- III.d. The Contractor will develop a projection of the levels of activity required in subsequent years to achieve program goal. This projection will include indications of future levels of activity, in terms of magnitude of investment and other required inputs such as manpower, materials, etc., necessary to reach sector targets for the Decade.
(Primary Inputs by all Team members).
- III.e. The Contractor will describe mechanisms for coordination between government agencies and between the government and assisting multi-lateral and bi-lateral agencies. Also to be described are the procedures for program evaluation at fixed points during the Decade including the specification of base line information necessary for such evaluation.
(Primary Inputs by Team Leader).
- III.f. It is estimated that 40 person weeks of specialized technical inputs will be required in the period May - June 1980. The breakdown of specialists and proposed timing is as follows:

Sanitary Engineer (Team Leader)	6 weeks	May 5 - June 28
Economist	6 weeks	May 12 - June 21
Systems Management Specialist	6 weeks	May 12 - June 21
Social Scientist	6 weeks	May 12 - June 21
Geohydrologist	6 weeks	May 12 - June 21
Manpower Development Specialist	4 weeks	May 26 - June 21
Materials Technologist	5 weeks	May 19 - June 21

The Sanitary Engineer/Team Leader should arrive o/a May 5, 1980, with a work plan for each team member in carrying out his assigned tasks. The work plans will detail the tasks for each team member and indicate the methodology of approach and the timing of events necessary to complete individual member inputs into the final report. The work plans will be reviewed, augmented as to appropriate contacts and sources of information, and approved by the Ministry of Local Government, with USAID concurrence.

- III.g. The Sanitary Engineer/Team Leader will be responsible for the coordination of all team members' activities. As Team Leader he will be responsible for working contact with other parties, both multi-lateral and bi-lateral, who are interested in the development of water supplies and excreta disposal activities in Sri Lanka. In the interest of coordination, contact should be established and maintained with the UNDP Resident Representative and the WHO and UNICEF staffs, all of whom have potential for contribution to the success of team efforts. Coordination should also be established with bi-lateral agencies which are represented in Colombo and have an interest in water supply and

sanitation. As a further step in coordination, the Sanitary Engineer/Team Leader should have consultative discussions with WHO/South East Asia Regional Office staff in New Delhi prior to arrival in Colombo and the Jackson/Steele WHO Team if it is still in Sri Lanka.

IV. Qualifications of Team Members

All members of the team shall have extensive experience in the planning and implementation of water supply and excreta disposal activities in less developed countries. Specific team members shall have the following qualifications:

IV.a. Sanitary Engineer/Team Leader

Broad experience on Sanitary Engineering with particular emphasis on program and project planning in less developed countries. He must be knowledgeable about the problems of organization, operations, maintenance and evaluation and about the application of appropriate technology and the adaptation of technology to developing country situations. The individual must be able to orchestrate and manage team efforts, deal effectively with GSL officials and coordinate with other agencies. The person also must have demonstrated report-writing ability.

IV.b. Economist

This should be a person with experience in the development economics and financial analysis of water supply and sanitation with competence to assess the costs and social benefits (in terms of health and quality of life) of water and sanitation activities. The individual must be capable of applying acceptable methods of analysis to short and long term social and financial impact. This person must be able to define, assess and quantify the objectives and make least cost analysis of proposed approaches with appropriate technologies. He or she must also be capable of developing tariff structures to assure adequate, continuing financial flow for recurrent costs and capital recovery.

IV.c. Systems Management Specialist

This should be a person with experience in working with governmental institutions in the water and sanitation sector in developing countries. The individual must be capable of relating tasks to targets, assessing capabilities of existing institutions and delineating approaches to expand and/or improve capabilities to meet sector development targets. The individual should be familiar with data management processes and procedures which assure managers of adequate information for decision making and evaluation.

IV.d. Social Scientist

This should be a person with experience in the sociological context of Asian society in general and Sri Lankan society in particular. The individual must be capable of assessing the potential impact of water and sanitation on the society and identifying constraints which might arise from the society, including analysis on how society views potable water and sanitation in their personal priorities. The person must also be able to provide insights into ways of overcoming any such constraints and into practical ways of stimulating a greater community participation in the development process.

IV.e. Geohydrologist

This should be a person of broad experience in the evaluation and assessment of ground and surface water resources. The person must be familiar with the methods of extraction and collection appropriate to developing country situations. The individual must be able to identify, from past studies and local experience, those elements which might pose problems for water development and to propose principles and practices which will lead to the orderly development of the water resources for human use. The person must be able to identify types of technology appropriate for extraction under conditions existing in Sri Lanka.

IV.f. Manpower Development Specialist

This person should have broad experience in the task-oriented training of water supply and sanitation workers at all levels. The individual must be able to define the categories of personnel required for a comprehensive program in the sector; assess and evaluate current inputs; assess and evaluate institutional capability to provide appropriately trained manpower at all levels, and suggest means of meeting projected manpower needs. The Manpower Development Specialist must work closely with the Systems Management Specialist in defining institutional needs for trained personnel to carry out Decade strategies.

IV.g. Materials Technologist

This person should be thoroughly familiar with existing technology for water supply and sanitation and how it relates to developing country needs. The individual must be able to assess capacity for local production of pertinent materials and equipment and capability to develop new technology. The person must be able to suggest areas in which local capacity and capability might be increased to better support the efforts of the sector program.

V. Report

A final draft Decade Plan should be completed, reviewed and approved by the GSL Ministry of Local Government, Housing and Construction with USAID/Sri Lanka concurrence and reproduced in twenty copies

before the Team Leader departs Sri Lanka no later than July 5, 1980. The final report (plan) will be submitted to USAID/Sri Lanka for forwarding to the Ministry of Local Government, Housing and Construction in fifty copies within thirty days from date of acceptance of the final draft report (plan). The plan should be comprehensive and to the point with annexes containing analytical supporting data as required.